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# First Quarterly Groundwater Monitoring Report

Former Griffin Wheel Brass Foundry Tacoma, Washington

## Amsted Industries Chicago, Illinois

K/J 926061.00 5 April 1993 Kennedy/Jenks Consultants

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### Kennedy/Jenks Consultants

### **Engineers and Scientists**

6 April 1993

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SUPEHFUND REMEDIAL BRANCH

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Mr. Loren McPhillips
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Subject:

First Quarterly Groundwater Monitoring Report

Former Griffin Wheel Brass Foundry - Tacoma, Washington

Amsted Industries K/J 926061.00

Dear Mr. McPhillips:

In accordance with our agreement with Amsted Industries (Amsted) and the *Final Groundwater Monitoring Program Work Plan of February 1993*, this letter report presents the First Quarterly Groundwater Monitoring Report and outlines the results of Kennedy/Jenks Consultants' groundwater monitoring activities at Amsted's former Brass Foundry (Griffin Wheel Brass Foundry).

This letter report includes:

- A summary and description of monitoring activities performed at the former Griffin Wheel Brass Foundry site
- Water level elevations of onsite groundwater monitoring wells
- A brief discussion of local hydrogeology relative to other investigations performed at the former Griffin Wheel Brass Foundry site, including groundwater flow direction and contour map
- Observations of floating product

- Groundwater sampling procedures and field parameters
- A summary of analytical results.

#### **FIELD MONITORING ACTIVITIES**

Kennedy/Jenks Consultants personnel performed the following groundwater monitoring activities at the former Griffin Wheel Brass Foundry site on 17 February 1993:

- Measured water levels in groundwater monitoring wells NMW-8, NMW-9, NMW-10, NMW-11, NMW-12, NMW-13, NMW-14, MW-1A, and MW-3A
- Inspected the monitoring wells (listed above) for the presence of floating product
- Recovered floating product from groundwater monitoring well NMW-13
- Collected groundwater samples from monitoring wells NMW-8, NMW-9, NMW-10, NMW-11, NMW-12, NMW-13, and NMW-14.

The groundwater wells were resampled on 2 March 1993, due to laboratory contamination. During resampling, monitoring wells were inspected again for the presence of floating product. Floating product was also recovered from well NMW-13 at this time.

#### WATER LEVEL ELEVATIONS

Water level measurements were performed at groundwater monitoring wells NMW-8, NMW-9, NMW-10, NMW-11, NMW-12, NMW-13, NMW-14, MW-1A, and MW-3A. The location of these wells is shown on Figure 1A (Attachment 1). Water level measurements were performed by procedures specified in the Final Work Plan. Water level elevations are presented in Table 1A (Attachment 2).

#### **HYDROGEOLOGIC CONDITIONS**

Groundwater elevations were contoured using PC TIN 3.4D and ARC/INFO 3.4D computer software. The contour map (Figure 1A - Attachment 1) shows the groundwater surface of onsite monitoring wells. The groundwater flow direction and gradient near the location of the former underground storage tank (UST) were estimated from the contour map.

The estimated groundwater flow is in a northwest direction (north 42 degrees west); the estimated groundwater gradient is 0.0020 ft/ft. These values are consistent with previous calculated flow direction and gradient data presented in the Subsurface Investigation, Former Griffin Wheel Brass Foundry, South Tacoma Field Superfund Site, Tacoma, Washington, dated December 1992 by Kennedy/Jenks Consultants.

#### **OBSERVATION OF FLOATING PRODUCT**

All onsite wells were monitored and visually inspected for the presence of floating product on the water table surface. The procedures for observing and monitoring the wells entailed affixing an oil absorbent material to a water level probe and placing the

probe in the well at the groundwater surface. The absorbent material was then visually inspected for the presence of floating product.

Floating product was observed in well NMW-13 during both monitoring events. The floating product was recovered from this well by affixing oil absorbent material to a weighted string and placing the weighted string into the well at the groundwater surface. This procedure was repeated four times, until no floating product was observed on the absorbent material. Floating product was observed on only portions of the absorbent material during the recovery procedure. The amount of floating product affixed to the absorbent material diminished with each subsequent application of this procedure.

#### **GROUNDWATER SAMPLING**

Groundwater samples were collected from wells NMW-8, NMW-9, NMW-10, NMW-11, NMW-12, NMW-13, and NMW-14 and analyzed for total petroleum hydrocarbons (TPH) by Washington State Method WTPH-D and for polynuclear aromatic hydrocarbons (PAH) by U.S. Environmental Protection Agency (EPA) Method 8310. Due to laboratory contamination of the samples for TPH analyses, the monitoring wells were resampled 2 March 1993. The samples collected 2 March 1993 were analyzed only for TPH by Washington State Method WTPH-D because the previous samples analyzed for PAH analyses were not impacted by the laboratory contamination.

Groundwater sampling was performed as specified in the Final Work Plan during both events. Prior to purging and sampling the wells, the dedicated pumps were raised within the casing so that the top of the pump was within approximately 1 foot of the static water level.

Field parameters, including pH, temperature, and conductivity, were measured and recorded during both groundwater sampling events. The field parameters for both sampling events are summarized in Tables 2A1 and 2A2 (Attachment 2). Groundwater purge and sampling forms for both events are presented in Attachment 3.

One field duplicate sample and one field blank sample were collected during each sampling event. The field duplicate and blank samples were analyzed for the same analytes as the groundwater samples (TPH and PAH). Analytical results are summarized in Table 3A (Attachment 2). Complete analytical results (including quality assurance data) are maintained in the project file and are available upon request.

#### **SUMMARY OF ANALYTICAL RESULTS**

Analytical data generated by the laboratory was reviewed to assess the laboratory's performance in meeting the quality control specifications for detection limits, accuracy, precision, and completeness. The WTPH-D surrogate percent recoveries for two samples (sample 1795 and the field blank) did not meet the method control limits. The PAH surrogate percent recovery for sample 1791 also did not meet the laboratory control limit. The laboratory noted this in their case narratives and stated that reextraction and analyses of the samples was not possible because there was an insufficient amount of sample. To ensure this situation does not recur, double or triple sample volumes will be collected and submitted to the laboratory for subsequent sampling events. All other data quality control criteria (i.e., matrix spike recoveries, relative percent differences, method blank analyses) were met.

Several non-carcinogenic PAH compounds were detected in well NMW-13. Concentrations of all detected compounds were less than 1  $\mu$ g/L. The detected compounds were similar to compounds detected in well NMW-13 during the previous sampling of the

well in September 1992. However, in general, concentrations detected during the first quarterly sampling event were less than concentrations detected during the September sampling event. A comparison of compounds detected in well NMW-13 from the two sampling events is shown in Table 4A (Attachment 2). PAHs were not detected in any of the other groundwater monitoring wells sampled.

TPHs were detected in well NMW-13 at a concentration of 0.7 mg/L (the duplicate sample concentration was 0.8 mg/L). TPHs were not detected in well NMW-13 during the September sampling event. However, groundwater water samples collected in September were analyzed for TPH by Washington State Method WTPH-418.1. (Groundwater samples collected during the first quarter of groundwater sampling were analyzed for TPH by Washington State Method WTPH-D.) TPH were not detected in any of the other sampled groundwater monitoring wells.

The second quarter of groundwater monitoring is scheduled for May 1993. EPA will be contacted prior to this event.

#### Kennedy/Jenks Consultants

Mr. Loren McPhillips U.S. Environmental Protection Agency, Region 10 6 April 1993 Page 7

Please contact us at (206) 874-0555 if you have any questions regarding the information presented herein.

Very truly yours,

KENNEDY/JENKS CONSULTANTS

Julie A. Reid, CHMM

Project Engineer

Nathan A. Graves Vice Present

Natho Alaws

JAR:NAG/dfb

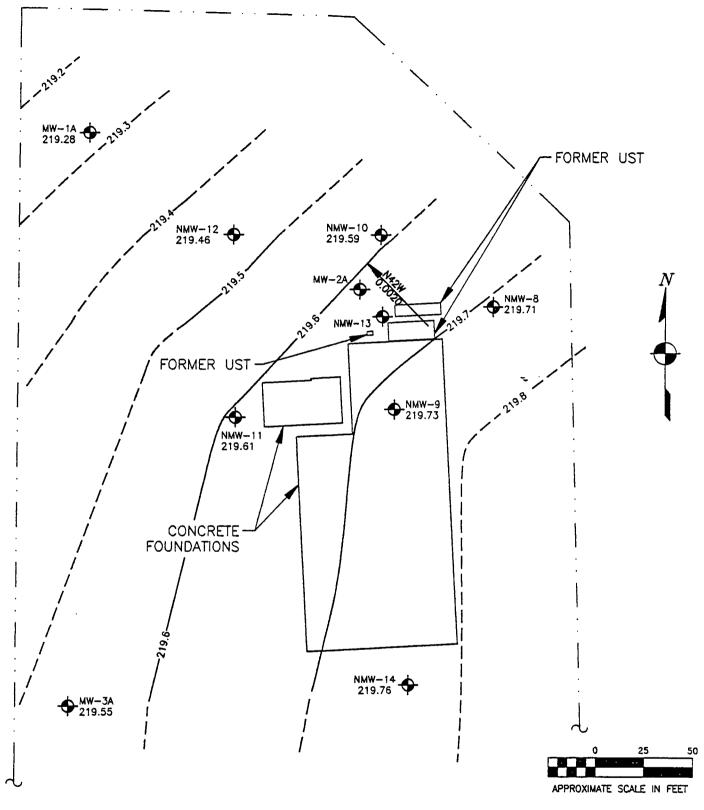
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**Enclosures** 

cc: Edward Brosius, Amsted Industries
Bill Joyce, Ogden Murphy & Wallace
John Frerich, ICF Technology, Inc.
Chris Poindexter, Washington State Department of Ecology

## **Attachment 1**

Figure



#### **LEGEND**

**₩**-3A 219.55 MONITORING WELL LOCATION WITH WATER LEVEL ELEVATION IN FEET ABOVE MEAN SEA LEVEL (CITY OF TACOMA NGVD 29 VERTICAL DATUM).



APPROXIMATE WATER LEVEL ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL.



ESTIMATED GROUNDWATER FLOW DIRECTION AND GRADIENT.

### Kennedy/Jenks Consultants

AMSTED INDUSTRIES TACOMA, WA

#### WATER LEVEL CONTOUR MAP FEBRUARY 1993

926061.00/P3SK004

FIGURE 1A

## **Attachment 2**

Tables

### TABLE 1A(a)

# GROUNDWATER LEVEL MEASUREMENTS FIRST QUARTER - FEBRUARY MONITORING EVENT Former Griffin Wheel Brass Foundry

Well No.	Location No.	Top of Monument Elevation (feet) <sup>(b)</sup>	Depth of Water (feet) <sup>(c)</sup>	Water Level Elevation (feet)
NMW-8	1789	252.94	33.23	219.71
NMW-9	1790	253.79	34.06	219.73
NMW-10	1791	253.49	33.90	219.59
NMW-11	1792	252.28	32.67	219.61
NMW-12	1793	252.49	33.03	219.46
NMW-13	1794	252.76	31.60	221.16
NMW-14	1795	249.34	29.58	219.76
MW-1A	1773	243.62	24.34	219.28
MW-3A	1775	240.64	21.09	219.55

#### Notes:

- (a) Tables in the Quarterly Groundwater Monitoring Reports will be labeled A for the first quarter, B for the second quarter, C for the third quarter, and D for the fourth quarter to differentiate between the four quarters of groundwater monitoring.
- (b) Elevations are given in feet and are based on City of Tacoma vertical datum.
- (c) Depth to water is measured from top of the steel well monument.

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### TABLE 2A1

# SUMMARY OF GROUNDWATER MONITORING ACTIVITIES FIRST QUARTER - FEBRUARY MONITORING EVENT Former Griffin Wheel Brass Foundry

Well Number	Sample Identification	Date	Time	Water Depth <sup>(a)</sup> (feet)	Product Observed	Sampling Method <sup>(b)</sup>	Duration of Purge (minutes)	Water Volume Removed (gallons)	Well Volumes Removed	Conductivity (µmhos/cm)	pH (units)	Temperature (° celsius)	Relative Turbidity/Color <sup>(c)</sup>	Well Dewatered
NMW-8	1789GU000000000.010	02/17/93	1225	33.23	No	Sub. Pump	20	9.0	5.2	188	6.59	12.8	Clear	No
NMW-9	1790GU000000000.010	02/17/93	1425	34.06	No	Sub. Pump	52	22	3.0	332	6.66	11.7	Clear	No
NMW-10	1791GU000000000.010	02/17/93	1100	33.90	No	Sub. Pump	19	6.5	3.9	228	6.43	12.3	Slight/Gray	No
NMW-11	1792GU000000000.010	02/17/93	1135	32.67	No	Sub. Pump	18	9.0	4.9	449	6.84	12.5	Slight/Gray	No
NMW-12	1793GU000000000.010	02/17/93	1010	33.03	No	Sub. Pump	20	7.0	4.0	302	6.62	11.8	Clear	No
NMW-13	1794GU201000000.010 2001GU202000000.010 <sup>(d)</sup>	02/17/93	1555	31.60	Yes	Sub. Pump	43	48	3.0	308	6.61	13.0	Clear	No
NMW-14	1795GU000000000.010	02/17/93	0925	29.58	No	Sub. Pump	23	9.0	3.9	318	6.74	11.4	Slight/Yellow	No
MW-1A	NS <sup>(e)</sup>	02/17/93	0850	24.34	No	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3A	NS	02/17/93	0840	21.09	No	NS	NS	NS	NS	NS	NS	NS	NS	NS

#### Notes:

- (a) Depth measured from top of well monument.
- (b) All wells were sampled with a submersible pump.
- (c) Relative turbidity was determined through visual observation.
- (d) A duplicate groundwater sample was collected at well NMW-13.
- (e) NS Not sampled. The water levels of monitoring wells MW-1A and MW-3A were measured and the wells were visually observed for the presence of product.

### TABLE 2A2

# SUMMARY OF GROUNDWATER MONITORING ACTIVITIES FIRST QUARTER - MARCH MONITORING EVENT Former Griffin Wheel Brass Foundry

Well Number	Sample Identification	Date	Time	Water Depth <sup>(a)</sup> (feet)	Product Observed	Sampling Method <sup>(b)</sup>	Duration of Purge (minutes)	Water Volume Removed (gallons)	Well Volumes Removed	Conductivity (µmhos/cm)	pH (units)	Temperature (° celsius)	Relative Turbidity/Color <sup>(c)</sup>	Well Dewatered
NMW-8	1789GU000000000.010	03/02/93	1200	33.44	No	Sub. Pump	22	5.0	3.0	188	6.00	13.1	Slight/Gray	No
NMW-9	1790GU000000000.010	03/02/93	1320	34.25	No	Sub. Pump	25	20	3.0	338	6.33	13.5	Clear	No
NMW-10	1791GU000000000.010	03/02/93	1030	34.15	No	Sub. Pump	28	5.0	3.1	238	6.06	12.0	Slight/Gray	No
NMW-11	1792GU000000000.010	03/02/93	1115	32.88	No	Sub. Pump	23	5.0	2.8	450	6.35	12.9	Clear	No
NMW-12	1793GU000000000.010	03/02/93	0945	33.27	No	Sub. Pump	23	6.0	3.5	257	6.44	11.8	Clear	No
NMW-13	1794GU201000000.010 2001GU202000000.010 <sup>(d)</sup>	03/02/93	1500	32.20	Yes	Sub. Pump	54	52	3.0	339	6.25	13.5	Clear	No
NMW-14	1795GU000000000.010	03/02/93	0855	27.50	No	Sub. Pump	35	8.0	3.0	297	6.48	12.2	Slight/Yellow	No
MW-1A	NS <sup>(e)</sup>	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

#### Notes:

- (a) Depth measured from top of well monument.
- (b) All wells were sampled with a submersible pump.
- (c) Relative turbidity was determined through visual observation.
- (d) A duplicate groundwater sample was collected at well NMW-13.
- (e) NS Not sampled. The water levels of monitoring wells MW-1A and MW-3A were measured and the wells were visually observed for the presence of product.

#### TABLE 3A

# SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FIRST QUARTER - FEBRUARY AND MARCH MONITORING EVENT Former Griffin Wheel Brass Foundry

Well Number			TPH <sup>(b)</sup>				
(Location Number)	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	(mg/L)
NMW-8 (1789)	<0.51 <sup>(c)</sup>	<0.10	< 0.051	< 0.051	< 0.10	<0.10	< 0.3
NMW-9 (1790)	< 0.50	< 0.10	< 0.050	< 0.050	< 0.10	< 0.10	< 0.3
NMW-10 (1791)	< 0.50	< 0.10	< 0.050	< 0.050	< 0.10	< 0.10	< 0.3
NMW-11 (1792)	< 0.50	< 0.10	< 0.050	< 0.050	< 0.10	< 0.10	< 0.3
NMW-12 (1793)	< 0.50	< 0.10	< 0.050	< 0.050	< 0.10	< 0.10	< 0.3
NMW-13 (1794/2001) <sup>(d)</sup>	< 0.51/0.84	0.27/0.44	0.37/0.16	0.099/0.085	0.73/0.84	0.69/0.45	0.7/0.8
NMW-14 (1795)	< 0.50	< 0.10	< 0.050	< 0.050	< 0.10	< 0.10	< 0.3
Field Blank (3740)	< 0.50	< 0.10	< 0.050	< 0.050	< 0.10	< 0.10	< 0.3

#### Notes:

- (a) Groundwater samples were analyzed fr PAHs by EPA Method 8310. Only detected compounds are provided in this table.
- (b) Groundwater samples were analyzed for TPH by Washington State Method WTPH-D.
- (c) "<" denotes analyte was not detected at the indicated detection limit.
- (d) A field duplicate sample (location number 2001) was collected at well NMW413.

#### TABLE 4A

### COMPARISON OF GROUNDWATER ANALYTICAL RESULTS FOR MONITORING WELL NMW-13 Former Griffin Wheel Brass Foundry

	Sam	pling Event
Analytes	September 1992	First Quarter (February and March 1993)
PAH Analytes (µg/L) <sup>(a)</sup>		
Acenaphthene	< 0.50 <sup>(b)</sup>	<0.51/0.84 <sup>(c)</sup>
Fluorene	< 0.10	0.27/0.44
Phenanthrene	2.9	0.37/0.16
Anthracene	0.064	0.099/0.085
Fluoranthene	4.3	0.73/0.84
Pyrene	4.0	0.69/0.45
TPH (mg/L)	< 1.0 <sup>(d)</sup>	0.7/0.8 <sup>(e)</sup>

#### Notes:

- (a) Groundwater samples were analyzed for PAHs by EPA Method 8310. Only detected compounds are provided in this table.
- (b) "<" denotes analyte was not detected at the indicated detection limit.
- (c) A field duplicate sample was collected during this sampling event. The second number in the table represents the sample duplicate analytical result.
- (d) The groundwater sample collected during this event was analyzed for TPH by Washington State Method WTPH-418.1.
- (e) Groundwater samples collected during the first quarter were analyzed for TPH by Washington State Method WTPH-D.

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## **Attachment 3**

**Groundwater Purge and Sample Forms** 

# GROUNDWATER PURGE AND SAMPLE FORMS

February 1993 Sampling Event

	·						1	1.				
Groundwater	Purge a	nd San	nple	Form		Date:	<u>9//</u>	7/93	Kenne	dy/Jen	ks C	onsultants
PROJECT NAME:	ANCIE	<u>)                                    </u>				WELL	NUMBE	R:/	JAIN-	<u> </u>		
PROJECT NUMBER:	<u>936</u>	261.0	$\bigcirc$			PERSO	NNEL:	R	<u>45 /J</u>	71R		
STATIC WATER LEV							RING	POINT	DESCRIPTION	1: <u>top</u>	7.4°,	r-IO/OL(IMEI)
WATER LEVEL MEAS	SUREMENT A	METHOD: _	SC	clinst		PURGE	METH	OD:	jim	)		
TIME START PURGE	: <u>/</u> 2	C2		<del></del>	-	PURGE	DEPT	H (FT)				· · · · · · · · · · · · · · · · · · ·
TIME END PURGE:	_/2	22										
TIME SAMPLED:	123	5										
COMMENTS:	010	duct	- 1	observ	EC	Cinco	0C/1	/				
				= 10 +								
						,				·		
WELL VOLUME CALCULATION	TOTAL DI (FT)			DEPTH TO ATER (FT)		WATER COLUMN (FI			ULTIPLIER I NG DIAMETEI 2			CASING VOLUME (GAL)
(FILL IN BE- FORE PURGING)	44.			33.23	3	10.77	X	0.16	0.64	1.44	=	1.72
TIME		120	1	1206		1208	15	2/1	1214	12	16	1620
VOLUME PURGED (	GAL)	0.5		1.5		3.0	4	5	60	7.	5	9.0
PURGE RATE (GPM	)				-				<del></del>		<u> </u>	
TEMPERATURE (°C	)	12.0	)	10%	-	1/1 /-			10:7		<u></u>	1-) 0
pH				12.5	- -	12.5	<u> 12</u>		12.7	12.	•	12.8
SPECIFIC		(C.7)		6.75	- -	6.70	C.	65	6.61		60	6.59
CONDUCTIVITY (mg/(uncorrected)	(cromhos	187	-	194		188	18	8	188	18	8	188
DISSOLVED OXYGE	N (mg/L)					-						
eH(MV)Pt-AgC1 re	ef.				-							
TURBIDITY/COLOR		MEDIC YLILLO				<del></del>	LOU	 <a~ <="" td=""><td></td><td></td><td>7</td><td>, CLOTIC</td></a~>			7	, CLOTIC
ODOR		NON			-							<u> </u>
DEPTH TO WATER (	DURING				1					_		
NUMBER OF CASING VOLUMES REMOVED	3											
DEWATERED?		NO			1							<b>—</b>

SAMPLE DATA: TIME SAMPL DEPTH SAMP SAMPLING E SAMPLE NO.	BER:	926 122 T): NT: CON TAINER TYPE	PRESER- VATIVE	FIELD FILTRATION	VOLUME FILLED	PERSONAMENTS:	COLOR	SHIPPED UNDER CHAIN-OF-CUSTODY AT 4°C?	ANALYSIS	COMMENTS
DEPTH SAMPLING E SAMPLING E SAMPLE CON NO. E  PURGE WATER TOTAL DISC DISPOSAL M DRUM DESIG	PLED:  EQUIPME  O. OF  NTAIN- ERS  DISPOS  CHARGE	T): NT: CON- TAINER TYPE	PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	
SAMPLING E  SAMPLE CON NO. E  PURGE WATER TOTAL DISC DISPOSAL M  DRUM DESIGN WELL HEAD CO	EQUIPME  O. OF ONTAIN— ERS  O DISPOSE CHARGE	NT:	PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	No	lio	CHAIN-OF-CUS- TODY AT 4°C?	REQUEST (METHOD)	
PURGE WATER TOTAL DISC DISPOSAL M DRUM DESIG	O. OF INTAIN- ERS	CON- TAINER TYPE	PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	No	lio	CHAIN-OF-CUS- TODY AT 4°C?	REQUEST (METHOD)	
PURGE WATER TOTAL DISC DISPOSAL N DRUM DESIG	DISPOS	GL	No No	NO NO	FILLED (ml or L)	No	lio	CHAIN-OF-CUS- TODY AT 4°C?	REQUEST (METHOD)	
PURGE WATER TOTAL DISC DISPOSAL N DRUM DESIG	DISPOS CCHARGE	GL	No	No			├			<u> </u>
DISPOSAL N DRUM DESIG	DISPOS CCHARGE				1-L	Νο	No	Yes	WTPH-T	<b>&gt;</b>
DISPOSAL N DRUM DESIG		AL NOTE	<u>ss</u> : (						·	
DISPOSAL N DRUM DESIG		AL NOTE	<u>ss</u> : ç						<del></del>	
DISPOSAL N DRUM DESIG		AL NOTE	<u>s</u> : _	<u> </u>						
VELL HEAD CO	METHOD:	dre				OMMENTS: _				
	GNATION	(S)/VOL	.UME PER	(GAL):_					·····	
ELL SECURIT	ONDITIO	NS CHEC	CKLIST (C	CIRCLE YE	ES OR NO -	IF NO, AD	D COMM	ENTS):		
	TY DEVI	CES OK	(BOLLARI	OS, CHRIS	STY LID, CA	ASING LID	AND LO	CK)?: (YES)	NO	
NSIDE OF WE	ELL HEA	D AND O	OUTER CAS	SING DRY	?: YES	) NO				
ELL CASING	OK?:	YES	, NO							
OMMENTS:		·		<del></del>		<del></del>				
						<del></del>			<del></del>	·
ENERAL: WEATHER CO	OITIGNO	NS:	UNIN	1						
TEMPERATUR	RE (SPE	CIFY °C	OR °F):	349	) 					
					·					

Groundwater	Purge a	nd Sam	ple	e Form	Date:	3/17/	93	Kenned	y/Jenks C	onsultants
PROJECT NAME:	4NCT	ED			WELL	NUMBER:	<b>A</b> /	M) W-9		
PROJECT NUMBER:	926	06/0	<u></u>	· · · · · · · · · · · · · · · · · · ·	PERS	ONNEL: 🚣		/JAR		<u></u>
STATIC WATER LEV	/EL (FT):	54/	<u>(</u>	(c)	MEAS	URING POI	NT DI	ESCRIPTION:	10,0 M	CHSing
WATER LEVEL MEAS	SUREMENT 1	METHOD: _	<u> 50</u>	linst	PURG	E METHOD:	7	amp_		· · · · · · · · · · · · · · · · · · ·
TIME START PURGE	:: <u>/3</u>	3 <u>0</u>			PURG	E DEPTH (	FT)			
TIME END PURGE:	142	2								<del></del>
TIME SAMPLED:	1425	···								
comments: Lo				; )						
no produ iopler le	vel 1	probe	سـ		. 1					
WELL VOLUME CALCULATION (FILL IN BE-	NELL VOLUME TOTAL DEPTH DEPTH TOTAL CALCULATION (FT) WATER (F				WATER COLUMN (F			CTIPLIER FO	<u>(IN)</u> - C	CASING VOLUME (GAL)
FORE PURGING)	ORE PURGING) 3-15.25 34.06					<u>.                                     </u>	1.16	0.64	<del></del>	7.23 (2
TIME		13.3	4	<u> 1338</u>	1246	135	<u>./</u>	<u> 1405                                    </u>	1417	1420
VOLUME PURGED (C	iAL)	25		4.0	7.5	10		14	18	21
PURGE RATE (GPM)	)									
TEMPERATURE (°C)	)	11.7		124	12.1	12.0	7)	119	11.8	11-7
рН		86-		·	666	665		6.60	6.67	666
SPECIFIC いら CONDUCTIVITY (mt (uncorrected)	(cromhos)	341		340	342	344		3.37	335	332
DISSOLVED OXYGEN	(mg/L)					<u></u>		<u> </u>		
eH(MV)Pt-AgC1 re	ef.									
TURBIDITY/COLOR		LOW	— v√		CLEAR					
ODOR		Non								
DEPTH TO WATER D	DURING									
NUMBER OF CASING VOLUMES REMOVED										
DEWATERED?		NO								<del></del>

ROJECT N		1-15 1 F		·		WELL	NUMBE	R: <u>//////</u>	1-4	···
	IUMBER: _	9.2t	<u>C61.C</u>	<u>C</u>		PERS	ONNEL:	TRHS /J	AR	
SAMPLE DA	MPLED:	145	5		co	OMMENTS: _				
	AMPLED (I					_		· · · · · · · · · · · · · · · · · · ·		<del> </del>
SAMPLIN	IG EQUIPMI	ENT: <u>, (</u>	كردون	)		_		·		
		CON-		FIELD	VOLUME FILLED	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?		COMMENTS
	ł	GL	No	Ro	1-1-	iVo	Ño	465	€3iC	
		GL	NC	No.	1-1	No	<mark>ಖ</mark> ಾ	Yes	WTPH-D	
									-	
						· · · · · · · · · · · · · · · · · · ·			,	
DISPOSA	AL METHOD	: <u>dr</u>	circi i	chsite						-
ELL HEAD	CONDITIO	ONS CHE	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, ADI	COMM	ENTS):	<del></del>	<u> </u>
ELL SECU	RITY DEV	ICES OK	(BOLLARI	OS, CHRI	STY LID, CA	ASING LID	AND LO	CK)?: (YES)	NO	
NSIDE OF	WELL HEA	AD AND	OUTER CAS	SING DRY	?: (YES)	NO		<b>\</b> .		
ELL CASI	NG OK?:	YES	NO							
OMMENTS:						···			<del></del>	· .
ENERAL: WEATHER	CONDITIO	)NS:	SUNN	<i>√</i>						
	TURE (SPE	CIFY °C	OR F)	35	- <i>e</i>	<del></del>	<del></del>		· <del></del>	
TEMPERA				0.7110 00	CAMOL TNO.					
	S ENCOUNT	ERED DU	JRING PUR	GING OR	SAMPLING?					

Groundwater	Purge a	nd Samp	le Form		Date	2/17/	<u>93</u>	Kenne	dy/Jen	ks C	Consultants
PROJECT NAME:	ALCIFI	0			WELL	NUMBER:	M	MW-10			
PROJECT NUMBER:	<u>926</u>	061.00			PERSO	NNEL: _	RH	S/JAR	·	<u></u> .	·
STATIC WATER LEV	/EL (FT):	_33.9	0 , ,		MEASU	RING PO	INT D	ESCRIPTION	: <del>lop</del>	<u>c+ 1</u>	YONUMENT
WATER LEVEL MEAS	SUREMENT N	METHOD: <	sclinst	<del></del>	PURGE	METHOD	:	aump			
TIME START PURGE	≣: <u>/</u> ⊘	39		<del></del>	PURGE	DEPTH	(FT)		<u> </u>		
TIME END PURGE:	/0	58		<del></del>					<del></del>		
TIME SAMPLED: _	1100	)	. <del></del>								
COMMENTS: 1/2	<u> Ara</u>	hict i	rbeerve	2				· · · · · <del>-</del>			•
RA	rced	Almy	) <u> </u>	6 te	et_						
		<u>'</u>								_	
									-	<del></del>	
WELL VOLUME CALCULATION	TOTAL DI		DEPTH TO WATER (FT)	COL	WATER .UMN (F)	r) [		CTIPLIER F G DIAMETER 2		b.	CASING VOLUME (GAL)
(FILL IN BE- FORE PURGING)	44.3	3	33.90		0.4	x	0.16	0.64	1.44	#	1.66
TIME		1040	1044	10	77	1175	1	1054	/09	57	
VOLUME PURGED (	GAL)	0.5	1.5	3	.0	4.0	-	50	6	5	
PURGE RATE (GPM	)									<u> </u>	
TEMPERATURE (°C	)	100	11.7-	165		12.4	1	12.6	14.	3	-
рН		0.07	6.11		16	6.2		6.38	6.4		
SPECIFIC CONDUCTIVITY (m (uncorrected)	(cromhos	:36	230		29	228		229		28	
DISSOLVED OXYGE	N (mg/L)										
eH(MV)Pt-AgC1 re	ef.										
TURBIDITY/COLOR		MEDIUM	1 1/BRCLONI		——÷	LOW			LOU		
ODOR		NONE								<del>'''</del>	
DEPTH TO WATER I	DURING				-						
NUMBER OF CASING VOLUMES REMOVED											-
DEWATERED?		NO								-	7

F-43.1 (4-88)

Ground	water P	urge a	ınd Sar	nple Fo	orm	Date:	2/1	<u> 19</u> Ken	nedy/Je	nks Consultan
ROJECT	NAME:	AUCI	FD					R: NAW		
PROJECT	NUMBER:	926	C61.C	(C)		PERS	ONNEL:	RHS 1J	AR	
SAMPLE DA	ATA: AMPLED: _	LIC	C		co	OMMENTS: _				
	SAMPLED (I			-	<del></del>				<del></del>	· · · · · · · · · · · · · · · · · · ·
SAMPLI	NG EQUIPMI	CON-	PUIT	<u>-i</u>	VOLUME		<u> </u>	CUITABER LIVES		
SAMPLE NO.	CONTAIN- ERS		PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?		COMMENTS
	1	61	NO	NO	1	نان	GKH	1 YES	<i>9310</i>	
	1	61	120	Ĉ	1-1_	LOW	()RA	1 162	WTPH	Ď
									~	
DISPOS	AL METHOD	: <u>D</u> (	un	oncit		_				
ELL HEAI	D CONDITIO	ONS CHE	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, AD	D COMME	ENTS):		
ELL SECI	URITY DEV	ICES OK	(BOLLARI	OS, CHRI	STY LID, CA	ASING LID	AND LO	CK)?: (YES)	NO	
NSIDE OF	F WELL HEA	AD AND (	OUTER CAS	SING DRY	?: (YES	NO		Trible Symposium		
ELL CAS	ING OK?:	(YES)	NO							
MMENTS:		<del></del> .		<del> </del>						
	<u> </u>	<del></del> -								
NERAL: WEATHER	R CONDITIO	DNS:	SCHIN	1						
TEMPERA	ATURE (SPE	CIFY °C	OR (°F):	3a°						
					SAMPLING?					
			<u></u>							
c: Proj Job Othe	File:	er:	······································	·		- -				

Groundwater	Purge a	nd San	nple	e Form		Date:	<u> </u>	<u> 7/93</u>	Kenne	dy/Jen	ks (	Consultants
PROJECT NAME:	AMST	EÙ				WELL	NUMBE	R: _ \	JMW'-1			
PROJECT NUMBER:	926	061.0	<u> </u>			PERSO	NNEL:	R	T/ ZH	AR		
STATIC WATER LEV	/EL (FT):	32.	67	<u></u>		MEASU	IRING	POINT	DESCRIPTIO	n: <u>tcρ</u>	cf	HICNIMERS
WATER LEVEL MEAS	SUREMENT N	METHOD: 3	<u> </u>	tiost		PURGE	METH	HOD:	aunp	<del>.</del>		<del></del>
TIME START PURGI	E: <u>///</u>	7	···-			PURGE	DEP	TH (FT)				
TIME END PURGE:	113	<u>S</u>		<del></del>		<del></del>						
TIME SAMPLED:	113:	<u>ک</u>				<del></del>						
COMMENTS: (C)	Hecto	d +	A	oster t	PAT	nk (3)	40	WWC		CCO.	) (0)(0	(1145)
No DITH	uct.	clse	r <u>v</u> 6	FC()								
Priced	Dun	0 5	6	-7 fee	<u> </u>							
Sample	LOAS	00	/ <u> </u> -{	c46	116	tripli	CAL	C -(e	r la	418 2	1/6	<u>(                                    </u>
WELL VOLUME CALCULATION	TOTAL DI			DEPTH TO ATER (FT)	i	WATER COLUMN (F		CASI (2	ULTIPLIER NG DIAMETE 2			CASING VOLUME (GAL)
(FILL IN BE- FORE PURGING)		2 3		32.67	=	//.53	X	0.16	0.64	1.44	=	1.84
TIME		1118	/	1/20		1/33	_/	126	1129	11	33	
VOLUME PURGED (	GAL)	0.5		1.5		30		50	7.0	9		
PURGE RATE (GPM	)				_	<u> </u>						
TEMPERATURE (°C	)	12.3	<del></del>	125	-	/2.5	15	 1-6	12.3	12	<u> </u>	
pH		6.7.		6.82	-	6.86		86	6.80	6.8		
SPECIFIC CONDUCTIVITY (m (uncorrected)	icromhos) cm	482	_	447		448	4	47	448	6.4-4	19	
DISSOLVED OXYGEN	N (mg/L)											
eH(MV)Pt-AgC1 re	ef.				-						<del></del>	
TURBIDITY/COLOR		HEDIU					1,0U 11:01	U .LOW	GRAY			7
ODOR		NON	Ē		-					_		∂
DEPTH TO WATER ( PURGE (FT)	DURING											
NUMBER OF CASING VOLUMES REMOVED	3											
DEWATERED?		Nic									٠.	:>-

F-43.1 (4-88)

SAMPLE DAT TIME SAM DEPTH SA SAMPLING SAMPLE C	A: PLED: MPLED (F EQUIPME NO. OF ONTAIN- ERS	//35 FT): ENT:/		FIELD				RHS/JA		
DEPTH SA SAMPLING SAMPLE NO.	MPLED (FEQUIPMENO. OF ONTAINERS	ENT:	子 ロップ/ PRESER-	2 FIELD		OMMENTS: _				
DEPTH SA SAMPLING SAMPLE C NO.	EQUIPMENO. OF ONTAINERS	ENT:	子 ロップ/ PRESER-	2 FIELD		_				
SAMPLE C	NO. OF ONTAIN- ERS	CON- TAINER TYPE	PRESER-	FIELD						
SAMPLE C	ONTAIN- ERS	TAINER TYPE		FIELD		_				
		1		TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?		COMMENTS
٠,		9	170	No	1-L	Low	GRA	1 155	6310	
	3	GI	N0	No	1-L	LOW	GRA	Y 15	WTPH	D
									**	
PURGE WATE TOTAL DI DISPOSAL DRUM DES	SCHARGE METHOD:	(GAL): : <u>drc</u>	CHI O	rite		OMMENTS: _				
VELL HEAD	CONDITIO	ONS CHEC	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, AD	O COMM	ENTS):		
VELL SECUR	ITY DEV	CES OK	(BOLLAR	DS, CHRI	STY LID, CA	ASING LID	AND LO	CK)?: YES	NO	
NSIDE OF	WELL HEA	AD AND O	OUTER CAS	SING DRY	?: <b>(ES</b> )	NO				
ELL CASIN	G OK?:	YES	NO							
COMMENTS:_				<del></del>			<del></del>			
· <del></del>					·	<del></del>	<del>_</del>			
GENERAL: WEATHER	CONDITIO	NS:	LINNY	(						
TEMPERAT	URE (SPE	CIFY °C	OR (°F)	: <u>33</u> °						
			_							
	<del>· · · · · · · · · · · · · · · · · · · </del>		<del></del>							

Groundw <i>a</i> ter	Purge a	nd Sam	ple	e Form		Date:	2/i	<del>4/93</del>	Kenne	dy/Jei	nks	Consultants
PROJECT NAME:	AMSTA	<u> </u>				WELL	NUMBE	R:	MW-1	2		
PROJECT NUMBER:	9260	061.C	<u>C</u>		<del></del>	PERSO	NNEL:	RH	15/574	R_	<del></del>	·····
STATIC WATER LEV							RING	POINT I	DESCRIPTION	и: <u>Еср</u>	ct	HonuMen
WATER LEVEL MEAS	SUREMENT N	METHOD: 💆	50	Linst		PURGE	METH	IOD:	ximp			<del></del>
TIME START PURG	E:	150				PURGE	DEPT	H (FT)				-··
TIME END PURGE:	101	0		· -		<del></del>						
TIME SAMPLED: _				<del></del>								
COMMENTS:	proc	lact	شع	bserve	<u> d</u>							
COMMENTS: NO	rised	Dur	<u> </u>	) Appa	<u>)</u>	ximale	1	6-7	feet			
			′	. ,			(/					
	<b>.</b>			<b>1</b>	_	1		1	~			· •
WELL VOLUME CALCULATION	TOTAL DI		1	DEPTH TO MATER (FT)		WATER COLUMN (FT	· I		ULTIPLIER NG DIAMETE 2		_	CASING VOLUME (GAL)
(FILL IN BE- FORE PURGING)	44.1			<i>33.</i> c3	=	11.07	X	0.16	0.64	1.44		1.77
TIME		095.	2	0955		<i>595</i> ?	10	02	1006			
VOLUME PURGED (	GAL)	0.5		1.5		3.0	3	. ()	7.0			
PURGE RATE (GPM	)				1			<u> </u>				
TEMPERATURE (°C	)	100		11 77	-	110	( )	O.	110			
pH	<del></del>	10.8		11.3	- -	11.8		.8	11.8			
SPECIFIC	<del></del>	6.4	<u>a</u>	6.59	- -	6.66	_6	.67	6.62	<u>`</u>		
CONDUCTIVITY (m (uncorrected)	icromhos) cm	300		201		300	3	23	302			
DISSOLVED OXYGE	N (mg/L)										·	
eH(MV)Pt-AgC1 re	ef.				1							
TURBIDITY/COLOR	<del></del>	CLO21			- - -					▶		
ODOR		Niswe	<del></del>		<del> -</del>					-  }		
DEPTH TO WATER PURGE (FT)	DURING	7.00.00									-	
NUMBER OF CASING VOLUMES REMOVED												
DEWATERED?		Nο			1					של .	_	

ROJECT I	NAME:	AIL	TEX)			WELL	NUMBE	R: NALW	12	
ROJECT I	NUMBER: _	720	0610	2 <i>0</i>				RHS/J		
SAMPLE DA		/C/:			C(	OMMENTS: _			<del> </del>	
	SAMPLED (1									
SAMPLI	NG EQUIPM	ENT:	Dun	D.						
SAMPLE NO.	NO. OF CONTAIN- ERS	CON-	<u> </u>	FIELD	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?		COMMENTS
	1	61	No	No	l-L	Ne	No	Ye5	8310	-
	l	GI	No	Nio	1-L	Ńο	Da	Yes	WIPH	-D
									~	
DISPOSA	AL METHOD	(GAL): : <u> </u>	CUMT	orsin		_				
ELL HEAD	CONDITIO	ONS CHE	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, AD	COMM	ENTS):		
					STY LID, C			·····	NO	
	F WELL HEA					) NO				
ELL CAS	ING OK?:	YES	. NO							
OMMENTS:						· · · · · · · · · · · · · · · · · · ·		-		······································
					<del></del>				·	
ENERAL: WEATHER	CONDITIC	DNS:	SCINN	Y						
TEMPERA	TURE (SPE	CIFY °C	OR F	32	<u> </u>	··				· · · · · · · · · · · · · · · · · · ·
PROBLEM	IS ENCOUNT	TERED DU	JRING PUF	RGING OR	SAMPLING?					
										· · · · · · · · · · · · · · · · · · ·
c: Proj Job Othe	File:	jer:				- -				

Groundwater	Purge a	nd Sample	Form	Date:	<u> </u>	Kenned	y/Jenks Co	onsultants	;
PROJECT NAME:	44578	D		WELL	NUMBER:	MW-1	3		
PROJECT NUMBER:	9360	06/00		PERS	ONNEL: <u>R</u> A	S/JAK	?		_
	·		<del> </del>			<del></del>	/ /	<del></del>	╡,
STATIC WATER LEV			/	MEAS!	JRING POINT	DESCRIPTION:	4cp c+	MONUNER	16
WATER LEVEL MEAS	SUREMENT N	METHOD: <u>M</u>	ring		E METHOD:				-
TIME START PURGE	: <u>151</u>	12	J	PURG	E DEPTH (FT)	TAISEC	pump	=3486	<u>{</u>
TIME END PURGE:			····						_
TIME SAMPLED: _	<u> 7555 </u>	collecte	d duf	thicake o	20016LG	000 C	000010	CH 160	$\langle s \rangle$
COMMENTS: 54	uck	String	Coste	Absorbe	ot MAY	enal 1	nh we	<i>i</i> (	_
The Make	MAL	Contain	000 ( pro	Oduct	- Well	WAS C	leaned	<u> </u>	
With Abs			. 1		- I - I				
ON string	<u> </u>	A MOD A	WIRMORI	yont -	This w	AK CONE	0 4KA	465	
WELL VOLUME CALCULATION (FILL IN BE-	TOTAL DI (FT)		DEPTH TO ATER (FT)	WATER COLUMN (F	CASI	ULTIPLIER FO NG DIAMETER 2	l i	ASING VOLUME (GAL)	
FORE PURGING)	4.25	<u> </u>	?1. 6	11.2	0.16	0.64	1.44	16.13 (	45)
TIME		1520	1526	1531	1535	1540	1545	1550	]/50
VOLUME PURGED (C	GAL)	5	10	15	20	28	35	40	47
PURGE RATE (GPM)	)								<u> </u>
TEMPERATURE (°C)	)	1 1.4	13.3	13.1	13.2	13.2	131	13.1	BO
pH		6.71	6.60	659	664	6.55	6.62	6.62	66
SPECIFIC )-(5 CONDUCTIVITY (m1 (uncorrected)	CM (CM)	331	314	313	312	309	310	309	30
DISSOLVED OXYGEN	(mg/L)								
eH(MV)Pt-AgC1 re	ef.								-
TURBIDITY/COLOR		CLEAR							
ODOR		NONE							-
DEPTH TO WATER ( PURGE (FT)	DURING								
NUMBER OF CASING VOLUMES REMOVED	3								
DEWATERED?		ic: 6							

Ground	water P	urge a	nd Sai	mple Fo	orm	Date:	2/1	<u>4 /93</u> Ker	nedy/Je	enks Consultant
PROJECT I	NAME: _ A	145T	<u> </u>		<del></del>	WELL	NUMBE	R: MM)V	- 73	
PROJECT I	NUMBER:	926	0640			PERS	ONNEL:	RH5/5	TAR	
SAMPLE DA	ATA: AMPLED:	1555			co	OMMENTS:	Duj	olicate s	anyle	collected
	SAMPLED (F									0.0.0
SAMPLII	NG EQUIPME	ENT: 🔑	)cm/	)				of 16		
SAMPLE NO.	NO. OF CONTAIN- ERS	CON- TAINER TYPE	PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?		COMMENTS
	ĺ	61	No	120	1-6	No	ん		0310	
	i	<b>4</b>	No	No	1-L	No.	Nc		MTPH-	D
, is		GI	No	No	1-L	No	N <sub>b</sub>		ରଥାତ	
	İ	GI	N <sub>o</sub>	No	1-6	No	No		WTPH	-D
PURGE WAT	TER DISPOS	SAL NOTE	ES:	18	co	OMMENTS:	<u> </u>		<del></del>	
	AL METHOD:	1							<del></del>	
	ESIGNATION									
VELL HEAD	CONDITIO	ONS CHEC	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, ADI	COMME	ENTS):		
ELL SECU	JRITY DEVI	CES OK	(BOLLARI	OS, CHRI	STY LID, CA	ASING LID	AND LO	 CK)?:	NO	
NSIDE OF	WELL HEA	AD AND C	OUTER CAS	SING DRY	?: YES	) NO				
ELL CASI	ING OK?:	YES	NO							
OMMENTS:						<del></del>				
				<del></del>					<del></del>	
ENERAL: WEATHER	CONDITIO	NS: <u>_</u> ≤	UNNY	,						
TEMPERA	TURE (SPE	CIFY °C	OR (°F);	<u> 33</u> 5	) 	·				
PROBLEM	IS ENCOUNT	ERED DU	RING PUR	GING OR	SAMPLING?					
c: Proj	ect Manag File:	er:				-				

Groundwater	Purge a	nd S	ampi	le	Form		Date:	<u> </u>	7/73	Kenne	edy	//Jen	ks (	Со	nsultants
PROJECT NAME: _	AMST	ED								MIW-1					
PROJECT NUMBER:	926	<u>C61</u>		<u>)                                    </u>			PERSO	NNEL:	R	45/J	AR	2			
STATIC WATER LE	VEL (FT):	ුර	9.58	8	7		MEASU	RING	POINT I	DESCRIPTIO	N: 7	<del>/</del> Ср (	of	Μ	onumen
WATER LEVEL MEAS	SUREMENT I	METHO	o: <u> </u>	90	olinst		PURGE	METH	IOD:	pump	)				<del></del>
TIME START PURG	e: <u>190</u>	0					PURGE	DEPT	H (FT)	<u> </u>					
TIME END PURGE:	09	23													
TIME SAMPLED: _	09	35													
COMMENTS: CA	NibrA	464	DΉ	4	Meter	-	DH 7	-= =	7 CS	ì					
1			. 1		SErve										
					ΑρρτΟ)			18	7-11	feet					
		<del></del>	· · · / ·	·	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	`	7	7.5	· · · · · · · ·						·
WELL VOLUME CALCULATION	TOTAL D				EPTH TO TER (FT)		WATER COLUMN (FI			ULTIPLIER NG DIAMETE 2				CA	SING VOLUME (GAL)
(FILL IN BE- FORE PURGING)	-14	1		Ĵ	958	-	14.52	T x	0.16	0.64	1	. 44	=	-	2.32
TIME		0	103		0907		×912	0	714	192	<u>.</u>				
VOLUME PURGED (	GAL)	/	.5		3.0	ŀ	ತ.೦	7	: C	9.0					
PURGE RATE (GPM	)			_ -				··						_	
TEMPERATURE (°C	)	9.	<u> </u>	- -	109	-	) i . l		 . 3	11.4	-				
рН	·		<u>3</u> 3	-	6.67	-	ic.73		.76	6.74				-	
SPECIFIC CONDUCTIVITY (m (uncorrected)	icromhos) cm				319		31E	31		3/5					
DISSOLVED OXYGE	N (mg/L)														
eH(MV)Pt-AgC1 r	ef.			_ -							_		_	_	
TURBIDITY/COLOR			JIWN - OW! /	,	ROWN>	7	LOW YALLOW				<b>→</b>				
ODOR			NE			-					<del>``</del> >				
DEPTH TO WATER PURGE (FT)	DURING			- -		-								_	
NUMBER OF CASING VOLUMES REMOVED															
DEWATERED?		NE	_ <del></del>			_			<del></del>		<b>→</b>				

PROJECT I	NAME: 🖽	M578	D			WELL	NUMBER	R: <u>//</u> /	MYV	1-1	
PROJECT I	NUMBER: _	926	061.0	20		PERSO	ONNEL:	RH	5/7	AR	
SAMPLE DA	ATA: AMPLED: _	0%	85		co	DMMENTS: _					
	SAMPLED (			_		_		<del></del>	<del></del>		
SAMPLE NO.	NO. OF CONTAIN- ERS	CON-		FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	CHAIN_	OF_CIIS_	ANALYSIS REQUEST (METHOD)	COMMENTS
	į	61	NO	No	1-L	LOW		L		831C	
	l	61	NO	No	1-L	LON)	Yelle	SW.	YES	WTPH	D
										~	
DISPOSA	AL METHOD	(GAL): : <u>_</u> ر	in c	MEHC	Co	DMMENTS:					
ELL SECI	JRITY DEV	ICES OK	(BOLLARI	OS, CHRI	ES OR NO -				YES	NO	
	F WELL HEA	/		SING DRY	?: (YES	NO					
				· · · · · · · · · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·	
ENERAL: WEATHER	CONDITIO	ONS:	UNNY			<del> </del>		<del>-</del> <u>-</u> -		17-U-1-11	
	TURE (SPE		~								
PROBLEM	IS ENCOUNT	TERED DU	IRING PUR	GING OR	SAMPLING?				······		
c: Proj Job Othe	File:	jer:				-				<u>.</u>	

# GROUNDWATER PURGE AND SAMPLE FORMS

March 1993 Sampling Event

Groundwater	Purge a	nd Samp	le Form	Date:	3/5/93	Kenned	y/Jenks Co	onsultants
PROJECT NAME:	AMSTE	<u>つ</u>			NUMBER:/			
PROJECT NUMBER:	<u>9260</u>	6/00			DNNEL: <u>D</u> 2			
STATIC WATER LEV					JRING POINT	DESCRIPTION:	top of 1	YONUNET
WATER LEVEL MEAS	SUREMENT N	METHOD: 📑	<u>tinst</u>	PURGE	E METHOD:	pump	7	
TIME START PURGE	≣: <u> </u>	30	<del> </del>	PURGE	E DEPTH (FT)			
TIME END PURGE:				<del></del>				
TIME SAMPLED: _								
COMMENTS: 100	0 na	Schuck	observ	166				
rAn	sod	Dumb	0 6-7	teet	Drick	to pu	15110C	·
		<del></del>				r	0 0	
	·					~		
WELL VOLUME CALCULATION	TOTAL DI		DEPTH TO WATER (FT)	WATER COLUMN (F	T) CASI	ULTIPLIER FO NG DIAMETER 2	1 1	ASING VOLUME (GAL)
(FILL IN BE- FORE PURGING)	49		73 44	10.56	^	1 1	1.44	1.69
TIME		1130	1135	1139	1144	1149	1152	
VOLUME PURGED (	GAL)	0		2	3	4	5	
PURGE RATE (GPM	)							
TEMPERATURE (°C	)	12.9	12.8	12-9	12.8	13.3	13. [	
pH		5.99	-	6.08	6.02	6.05	6.00	
SPECIFIC CONDUCTIVITY (m/	icromhos) cm	187	191	188	158	188	188	
DISSOLVED OXYGE	N (mg/L)	$\times$					$\overline{}$	
eH(MV)Pt-AgC1 re	ef.	X	X	X	<b>&gt;</b> <	<u></u>	>	
TURBIDITY/COLOR		Cloudy	cloudy	Slightly Cloudy	$\rightarrow$	<b>→</b>	<del>&gt;</del>	
ODOR		none	none	nona	~>	>	>	
DEPTH TO WATER I PURGE (FT)	DURING						`	
NUMBER OF CASING VOLUMES REMOVED	3	0		I	107	-	3	
DEWATERED?		NJ						

Ground	water P	urge a	ınd Saı	nple Fo	orm	Date:	3/3	<u>193</u> Ken	nedy/Je	nks Consulta
PROJECT I	NAME:	7)/1/	TED			WELL	NUMBE	R: NMM	1-5"	
PROJECT I	NUMBER: _	420		.00		PERS	ONNEL:	DRDK	74/2	
SAMPLE DA	ATA: AMPLED: _	1.16	15 18	200_	C(	OMMENTS: _				
DEPTH :	SAMPLED (I	FT):				_		····		
SAMPLII	NG EQUIPM	ENT:	Pun	<u> </u>	<del></del>	_				<del></del>
SAMPLE NO.	NO. OF CONTAIN- ERS		PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?		COMMENTS
Ì	1	61	No	100	1-1	Low	its	Yes	MTPH	-D
	:							.1		
•									-	<u> </u>
	:									
DISPOSA	TER DISPO DISCHARGE AL METHOD ESIGNATIO	: <u>d</u> i	um	<u> </u>		OMMENTS: _	-			
		====	<del></del>	====	ES OR NO	TE NO AD	2 000	ENEC).		
					STY LID, CA				NO	
	F WELL HEA					) NO	AND LO	CK):. (IE3)	NO	
	ING OK?:	YES	МО							
COMMENTS:										
<del></del>		<del></del>				·				
GENERAL: WEATHER	CONDITION	ONS:	na-fi	40	verche	£				
TEMPERA	ATURE (SPE	ECIFY °C	OR	<u> </u>	4		- ···		·	
PROBLEM	4S ENCOUNT	TERED DU	JRING PUF	RGING OR	SAMPLING?					<del> </del>
<del></del>			<del></del> -					· · · · · · · · · · · · · · · · · · ·		
cc: Proj Job Othe	File:	ger:				- -				

Groundwater	Purge a	nd Sample	e Form	Date:	3/2/93	Kenned	y/Jenks C	onsultants
PROJECT NAME:	<i>指</i> 分)	ETED			NUMBER:			
PROJECT NUMBER:	926	chloc	<u></u>		ONNEL:		_	
STATIC WATER LEV	/EL (FT):	34.6	25	MEASI	URING POINT	DESCRIPTION:	TOA	
WATER LEVEL MEAS					E METHOD:	Dump		
TIME START PURGE	: <u> </u>	155		PURGI	E DEPTH (FT)		· · · · · · · · · · · · · · · · · · ·	
TIME END PURGE:								
TIME SAMPLED:	13	20		<del></del>				
COMMENTS:	O 0	oduct	<u>cbse</u>	rvel				
j	Hisec	( pun	D MOI	OTOXIM.	Alchy a	2 fret		
		, ,	7		Ø			
WELL VOLUME CALCULATION	TOTAL DI	_	DEPTH TO ATER (FT)	WATER COLUMN (F	T) CASI 2	ULTIPLIER FO NG DIAMETER		CASING VOLUME (GAL)
(FILL IN BE- FORE PURGING)	44.	8 -	34.25	10.55	X 0.16	0.64	1.44	io. 75
TIME		1255	1302	1305	1307	13/1	1315	1320
VOLUME PURGED (	GAL)	$\bigcirc$	5	8	12	15	18	20
PURGE RATE (GPM	)							
TEMPERATURE (°C	)	13.3	13.3	13.3	13.4	i3.5	13.4	13.5
рН		6.16	6.29	36	6.35	6.37	6.34	6.33
SPECIFIC CONDUCTIVITY ( <u>m</u> (uncorrected)	(cromhos	372	37/	368	364	354	346	<i>3</i> 38
DISSOLVED OXYGE	N (mg/L)	$\times$	<b>X</b>	×	$\times$	× -	×	<b>X</b>
eH(MV)Pt-AgC1 re	ef.	X	$\times$	<u>×</u>	$\sim$	×	×	×
TURBIDITY/COLOR		Clean	Olean	clan	clion	clian	clim	elcar
ODOR		nore	inone	none	noni	none	none	ハサルス
DEPTH TO WATER ( PURGE (FT)	DURING							7.0.7
NUMBER OF CASING VOLUMES REMOVED	3							
DEWATERED?		10						

	NAME:	7157 15	TEU			WELL	NUMBER	NMM	1-9	
ROJECT	NUMBER:	926	<u> </u>	.00		PERSO	ONNEL:	DBD/	JAR	
SAMPLE D	ATA: AMPLED:	13:	30		c	OMMENTS: _				
DEPTH	SAMPLED (I	FT):		·• · · · · · · · · · · · · · · · · · ·	<del></del>	_				
SAMPLI	NG EQUIPM	ENT:	pum	$\Omega$						
SAMPLE NO.		CON-		FIELD	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS
	Ì	61	No	No	1-L	NO	No	yes	WTPH	D
***************************************									-	<del></del>
										····
			<u> </u>							
PURGE WA	TER DISPO	SAL NOT	ES: Ol			OMMENTS:				
		:				OMMEN 15:				
DICDOC	AL METHOD	: (1	<u>(C(1))</u>	5 017				<del> </del>	<del></del>	
DISPOS			LIME DED	(CAL)						
DRUM D	ES IGNATIO	N(S)/VO								
DRUM D	ESIGNATION D CONDITION	N(S)/VOI	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, ADI			2	
DRUM DI	ESIGNATION D CONDITION URITY DEV	ONS CHEC	CKLIST ((	CIRCLE Y	ES OR NO -	ASING LID /			NO	
DRUM DI ELL HEA ELL SECI	ESIGNATION D CONDITION URITY DEVI	ONS CHEC	CKLIST ((  (BOLLARE  OUTER CAS	CIRCLE Y	ES OR NO -				NO	
DRUM DELL HEAD ELL SECTIONSIDE OF	ESIGNATION D CONDITION URITY DEVI	DNS CHEC	CKLIST (C	CIRCLE Y	ES OR NO - STY LID, CA	ASING LID /	AND LOC		NO	
DRUM DI	ESIGNATION D CONDITION URITY DEVI	DNS CHEC	CKLIST (C	CIRCLE Y	ES OR NO - STY LID, CA	ASING LID /	AND LOC		NO	
DRUM DI	ESIGNATION D CONDITION URITY DEVI	DNS CHEC	CKLIST (C	CIRCLE Y	ES OR NO - STY LID, CA	ASING LID /	AND LOC		NO	
DRUM DI	D CONDITION URITY DEVI	DNS CHEC	CKLIST (C (BOLLARE DUTER CAS NO	DIRCLE Y	ES OR NO - STY LID, CA	ASING LID /	AND LOC	ck)?: YES		
DRUM DI JELL HEAD JELL SECTIONSIDE OF	D CONDITION URITY DEVI	DNS CHEC	CKLIST (C (BOLLARE DUTER CAS NO	DIRCLE Y	ES OR NO - STY LID, CA	ASING LID /	AND LOC	ck)?: YES		
DRUM DI VELL HEAD VELL SECTIONSIDE OF VELL CAS COMMENTS VENERAL: VEATHER TEMPERA	ESIGNATION D CONDITION URITY DEVI	DNS CHECTES OK AD AND CHES  DNS:	(BOLLARI OUTER CAS NO	DIRCLE Y	ES OR NO - STY LID, CA	ASING LID A	AND LOC	CK)?: YES		

PROJECT NAME:	Anns	TEO				JMW-	y/Jenks Co	
PROJECT NUMBER:						BD IJF		
PROJECT NUMBER:		CENT CO		PEKS	JNNEL:/_	UU (II	<u>//</u>	<del></del>
STATIC WATER LEV	/EL (FT):	34.15		MEASI	URING POINT I	DESCRIPTION:	4op of	HODUVACI
WATER LEVEL MEAS	SUREMENT N	METHOD:	dinst	PURGI	E METHOD:	Dump	·	
TIME START PURGE	E:	002		PURGI	E DEPTH (FT)	, , , , , , , , , , , , , , , , , , ,		· · · · · · · · · · · · · · · · · · ·
TIME END PURGE:	10.	30						
TIME SAMPLED:	/OE	30	. <del> </del>					
COMMENTS: 100	pro	duct.	observ	al .				
YAISEC	& pu	mj) F	<u> porcxi</u>	MAKLY	5-6-	feet pr	ior 40	· · · · · · · · · · · · · · · · · · ·
DUTGIT	ነ <u>'</u>	Collec-	£ 50m	ple in	1 tripli	cate 1	for lab	DAR
	ن ا			 	,,			
WELL VOLUME CALCULATION (FILL IN BE-	TOTAL DI	1 1	DEPTH TO WATER (FT)	WATER COLUMN (F	CASI	ULTIPLIER FO NG DIAMETER / 2	1 1	ASING VOLUME (GAL)
FORE PURGING)	44	3 1,	34.15	<u> </u>	"	0.64	1.44	1.624
TIME		1002	1006	1010	1013	1019	1030	
VOLUME PURGED (	GAL)		/	2	2.5	3	5	
PURGE RATE (GPM)	)							
TEMPERATURE (°C	)	115	172.1	17.7	12.2	12.2	17.0	
pH		5.85	6.00	6.00	5,99	596	6.06	
SPECIFIC CONDUCTIVITY (mt/(uncorrected)	icromhos)	236		239	239	238	238	
DISSOLVED OXYGER	N (mg/L)	<b>X</b>	X	$\sim$	X	$\overline{}$	×	$\sim$
eH(MV)Pt-AgC1 re	ef.	<b>X</b>	<del></del>	<b>—</b>	<u></u>		$\overline{}$	<del></del>
TURBIDITY/COLOR		Signily	clearer		deryslig Clina	IT SERS	->	
ODOR		None	none	$\rightarrow$	none	<u> </u>	<del></del>	
DEPTH TO WATER (	DURING		11011					
NUMBER OF CASING VOLUMES REMOVED	 3	0	-					
DEWATERED?		NO						
I		1 /	I.	1	1	1	I	I

Ground	water P	urge a	nd Sar	nple Fo	orm	Date:	3/3	2 <i>/</i> 4/3 Ker	nedy/Je	enks Consultants			
PROJECT	NAME:	7(145	(E))	-		WELL NUMBER: NMW-10							
PROJECT	NUMBER: _	936	-061.	<u>Co</u>		PERSO	ONNEL:	DRD /	JAR				
SAMPLE D	ATA: AMPLED: _	203	3 <u>0</u>		co			lect sa	•	ľ			
DEPTH SAMPLED (FT):													
SAMPLING EQUIPMENT: PUMP BAISC,													
SAMPLE NO.	NO. OF CONTAIN- ERS	CON- TAINER TYPE	PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	ŀ			
ì	3	61	No	120	1-L	ics	YES	Yes	WITP	4-D			
									<u>-</u>				
DISPOS	TER DISPO DISCHARGE AL METHOD ESIGNATIO	: <u>d</u>	um	<u> </u>		OMMENTS: _							
WELL HEA	D CONDITION	ONS CHE	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, ADD	COMME	NTS):	<del>.</del>				
WELL SEC	URITY DEV	ICES OK	(BOLLARI	OS, CHRIS	STY LID, CA	ASING LID A	AND LOC	CK)?: YES	NO				
INSIDE O	F WELL HEA	AD AND	DUTER CAS	SING DRY	?: YES	NO				·			
WELL CAS	ING OK?:	(YES)	NO										
COMMENTS	·								<del>-</del>				
		ŧ		$\cap$	JCKCA	-(-							
	ATURE (SPE		<u> </u>		SAMPLING?		-						
cc: Proj Job Othe	File:	jer:				-							

Groundwater	Purge a	nd San	npio	e Form		Date:	3/5	193	Kenne	dy/Jer	ıks C	onsultants
PROJECT NAME: _	ANC.	170				WELL	NUMBE	R:	IMW-	<del></del>		
PROJECT NUMBER:	92k(	<u> 261.0</u>	00	<del></del>		PERSO	NNEL:	Ir	30/5	4R		
STATIC WATER LEV	/EL (FT):		2,8	Š	_	MEASU	JRING	POINT (	DESCRIPTION	1: 10D	C+	MODUNG
WATER LEVEL MEAS								,				
TIME START PURG		PURGE METHOD: PURGE DEPTH (FT)										
TIME END PURGE:	<del></del>											
TIME SAMPLED: _			 			<del></del>						
COMMENTS: 12.C	pro	duc	1	055	e j	ved						
<u>r Ai</u>	300	pun	0	271	<u>) .</u>	feet					<del>.</del>	
Ringut	solle	tul	(D)	1170		#3	740	) W	W 00	000	2	10
			_		<del>_</del>	<del>                                     </del>			ULTIPLIER I		+	<del> </del>
WELL VOLUME CALCULATION	TOTAL DI (FT)	PTH DEPTH TO WATER (FT)			WATER COLUMN (FI		CASI	NG DIAMETER			CASING VOLUME (GAL)	
(FILL IN BE- FORE PURGING)	44.	2		3288	=	11 32	X	0.16		1.44	<b>]</b>	1811
TIME		105	0	1055		1059	Tic	25	1107	i i i	13	
VOLUME PURGED (	GAL)	0		1		, フ	3		4	1	5	
PURGE RATE (GPM	)				_ -							
TEMPERATURE (°C	)	11.	X	12.5		12.7	12.6		12.6	> 1Z	29	
pH		6.1	3	635	= -	4.34	6.	36	6.39	_	35	
SPECIFIC CONDUCTIVITY (m) (uncorrected)	(cromhos	37	0	427	7	443	74	19	450	4.	50	
DISSOLVED OXYGE	N (mg/L)	$\sim$	<u> </u>	×		$\times$		×	X		$\times$	
eH(MV)Pt-AgC1 re	ef.	<del>-</del>		×	-	X		<u> </u>	×		$\overline{\times}$	
TURBIDITY/COLOR		Brood	Ý			2/00/24	<u>ر</u> دان	ody	STEPHTLY Cloubs		اعتمال	
ODOR		non	جر	->		NONR		n-e	nêne	2 1	OM (	
DEPTH TO WATER I	DURING				_ -							
NUMBER OF CASING VOLUMES REMOVED	3	0			_ _	/			2			
DEWATERED?		70.00	`		_ -							,

	water P									nks Consulta
					<del></del>					
PROJECT 1	NUMBER:	926	061.	<u>00</u>		PERS	ONNEL:	DRDIJ	AK	
SAMPLE DA	ATA: AMPLED: _	<u>;                                    </u>	É		co	OMMENTS: _				
DEPTH S	SAMPLED (	T):			···	_				
SAMPLIN	NG EQUIPME	ENT:/	Dump	<u> </u>						1000
SAMPLE NO.	NO. OF CONTAIN- ERS	CON- TAINER TYPE	PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?		COMMENTS
		<u>J</u>	170	120	1-L	No	20	Yes	WTPH	D
									-	
DISPOSA DRUM DE	AL METHOD	: <u>ط</u> ۱(s)/۷۵۱	CUIY	<u> </u>	ite_	_		ENTC).		
					STY LID, C				NO	
NSIDE OF	WELL HEA	D AND	OUTER CAS	SING DRY	?: YES	NO				
ELL CASI	NG OK?:	YES	NO							
OMMENTS:										
			······			<del></del>				
	CONDITIO		/ 5	<b>√</b> .	( )					
			,-3						-	···
			· · · · · · · · · · · · · · · · · · ·							
c: Proj Job Othe	File:	er:	·····			<b>.</b>				

Groundwater Purge a	nd Sample	Form	Date:	3/2/93	Kenned	y/Jenks C	onsultants				
PROJECT NAME: AKT	FD -		WELL	NUMBER: <u></u>							
PROJECT NUMBER: 2360	061.00	` <u> </u>	PERSO	PERSONNEL: DRD /JAR							
STATIC WATER LEVEL (FT):	36	97	MEASI	JRING POINT (	DESCRIPTION:	top on	L MONULYER H				
WATER LEVEL MEASUREMENT N	_	linst	PURGI	E METHOD:	pump						
TIME START PURGE:	132		PURGI	E DEPTH (FT)		<del></del>					
TIME END PURGE:	15	·· <del>······</del>	<del></del>								
TIME SAMPLED:					<i>/</i> · ,						
COMMENTS: TAISED	pun	) APPO	CXIVIFIL	ely 64	eet_						
No pra	duct e	65err	4Q								
,											
					-						
WELL VOLUME TOTAL DI CALCULATION (FT) (FILL IN BE-	- · · · · · · · · · · · · · · · · · · ·	DEPTH TO ATER (FT)	WATER COLUMN (F	CASI	JETIPLIER FOR		CASING VOLUME (GAL)				
FORE PURGING)	<u> </u>	3327	10.83	1 " 1	0.64	1.44	1.73				
TIME	0925	0928	093Z	0935	0940	0945					
VOLUME PURGED (GAL)-	0	2	2.5	3	4	6					
PURGE RATE (GPM)			·								
TEMPERATURE (°C)	10.9	11.3	11.4	11.7	11.8	11.8					
рН	6.ZC	6.29	6,48	6.47	6.47	6.44					
SPECIFIC CONDUCTIVITY ( <u>micromhos</u> ) (uncorrected) cm	259	157	256	257	257	257	,				
DISSOLVED OXYGEN (mg/L)	<b>&gt;</b>		X	$\sim$	$\overline{}$	$\sim$					
eH(MV)Pt-AgCl ref.	X	$\times$	7	X	$\overline{\chi}$	$\times$	$\times$				
TURBIDITY/COLOR	91/9/14	ciun stight	clen 51ight	Clari	CUR						
ODOR	none	Tone	none	none		<b>\</b>	-				
DEPTH TO WATER DURING PURGE (FT)											
NUMBER OF CASING VOLUMES REMOVED	Ò,			****							
DEWATERED?	NO					7					

	water P					LIELI	MINOC	R: NMW		nks Consulta
								DBD LTA		······································
KWECI I	TOMBEK:	100 C	<u> </u>	<u> </u>		PERS	JNNEL:	NOOU	1/	<del></del>
SAMPLE DA	ATA: AMPLED: _	09	45		C	OMMENTS: _				
	SAMPLED (I					_		<del></del>		
SAMPLI	NG EQUIPM	ENT:	Dim	p		_		· · · · · · · · · · · · · · · · · · ·		
SAMPLE NO.	NO. OF CONTAIN- ERS		PRESER- VATIVE	FIELD FILTRA- TION	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?	REQUEST	COMMENTS
Ì	i	61	No	NC.	1-L	None	770	Yes	WTPH	-D
										······································
DISPOSA	TER DISPO DISCHARGE AL METHOD ESIGNATION	(GAL):	<u> </u>	<u> </u>	Le	OMMENTS: _	-			
ELL HEAD	CONDITIO	ONS CHE	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, ADI	COMM	ENTS):		
					STY LID, CA		-		NO	
NSIDE OF	WELL HEA	AD AND (	DUTER CAS	SING DRY	?: YES	NO				
ELL CASI	ING OK?:	YES	NO							
OMMENTS:		<u></u>								
	·									
ENERAL: WEATHER	CONDITIO	NS:	past	<u> </u>	Vercas	<del>.</del>				
	TURE (SPE			$\mathbf{Q}$						
PROBLEM	IS ENCOUNT	ERED DU	JRING PUR	RGING OR	SAMPLING?	<del></del>				
		<del></del>				<del></del>				
	ect Manag									

Groundwater	Purge a	nd San	nple	e Form		Date:	<u>3h</u>	193	Kenned	y/Jen	ks Co	onsultants			
PROJECT NAME:	(h) 75	1ED				WELL	NUMBEI	R:^	VMW-						
PROJECT NUMBER:			<u>O</u>	0			PERSONNEL: JARIABD								
STATIC WATER LE						<del></del>	JRING	POINT (	DESCRIPTION:		¿m	15/10/12/2/ <del>1</del>			
WATER LEVEL MEAS	SUREMENT I	METHOD: _	<u>5</u>	olinst		PURGE	METH	OD:	pump						
TIME START PURG	E: <u>/4</u> (	06_		,		PURGE	E DEPTI	H (FT)				<del></del>			
TIME END PURGE:	<u> 1500</u>	\													
TIME SAMPLED: _	<u> </u>														
COMMENTS: TOTAL	duct	de	er	ved ?	16	071 (08	15. (	lea	nati wi	4h 1	40	vhent			
MALERIAL									_			_			
Collecti												` `			
Dunno (	UPS 1	DEFL	£	2-3-1	<u>~                                    </u>	· <del>/</del>		,	<u> </u>						
WELL VOLUME CALCULATION (FILL IN BE-	TOTAL D	1	E .	DEPTH TO ATER (FT)	=	WATER COLUMN (F		I	JLTIPLIER FO NG DIAMETER Æ4	(IN)		ASING VOLUME (GAL)			
FORE PURGING)	44	<i> </i>		32.2		11.9	X	0.16	0.64	1.44		17-1			
TIME		140	<u></u>	1415	T	1433	14	38	1446	14.	53	1500			
VOLUME PURGED (	GAL)	Ö		8		17	26		34.2			<i>5</i> 2			
PURGE RATE (GPM	)				- -	<del> </del>	.,								
TEMPERATURE (°C	)	13.	4	13.8	-	13.6	13,5		14.0	13,		13.5			
рН		6.0	7	6.33		6.31	6:	30	6.28			6.25			
SPECIFIC CONDUCTIVITY (m (uncorrected)	icromhos) cm	34.	5	340		342	3	-//	340	3	39	339			
DISSOLVED OXYGE	N (mg/L)	$\mid \times \mid$	•	X		$\sim$		$\langle$	>	<u></u>	<	$\sim$			
eH(MV)Pt-AgC1 re	ef.	$\rightarrow$	<u>,</u>	X	-	$\times$		<u> </u>	/		7	$\overline{}$			
TURBIDITY/COLOR		Clean	`	clian		Clean						<b>→</b>			
ODOR	Shout		7	-	>		<b>—</b> >	<u> </u>			<b>→</b>				
DEPTH TO WATER ( PURGE (FT)	DURING				-										
NUMBER OF CASING VOLUMES REMOVED	G	0		1/2			1,	Y2	Z	2	1/2	3			
DEWATERED?		11.10		4								C.			

Ground	lwater P	urge a	ınd Sar	nple Fo	orm	Date:	3/2	<u> 193</u> Ken	nedy/Je	enks Consultants			
PROJECT	NAME: F	MSIE	7)			WELL NUMBER: <u>バハツィー3</u>							
PROJECT	NUMBER: _	9260	61.00	<u>)                                    </u>		PERS	ONNEL:	TOBO KIT	IR				
SAMPLE D	ATA: AMPLED: _	150C	)		co	OMMENTS: _	Coll	ected di	φ(ic <del>n</del>	k somple			
	SAMPLED (1 NG EQUIPMI					<u>(</u>	<p8>&gt;</p8>	ple ID -	-200	/)			
SAMPLE NO.	NO. OF CONTAIN- ERS	CON-	PRESER- VATIVE	FIELD	VOLUME FILLED (ml or L)	TURBIDITY	COLOR	SHIPPED UNDER CHAIN-OF-CUS- TODY AT 4°C?	ANALYSIS REQUEST (METHOD)	COMMENTS			
•	1	61	No	100	1-L	No	NO	16S	WITPH	-D			
<del></del>	-	61	No	Ño	I-L	No	ñ	465	WIPH	-D			
									,				
DISPOS	DISCHARGE AL METHOD ESIGNATION	: <u>da</u>	UN & C	nsite		OMMENTS:							
					ES OR NO -				NO				
				SING DRY	?: YES	МО							
	ING OK?:		NO	<u>.</u> .									
GENERAL: WEATHER	R CONDITIO	DNS:	Atly	cla	dy								
	ATURE (SPE		<u> </u>		CANDI THAC	-				<del> </del>			
	I NUUUNI	באבט טנ	JKING PUF	GING OR	SAMPLING?					-			
Job	ject Manag File: er:	jer:											

Groundwater	Purge a	nd Sample	e Form	Date:	3/2/93	Kenned	y/Jenks C	onsultants					
PROJECT NAME: _	1/1/578	7		WELL	NUMBER:		· · · · · · · · · · · · · · · · · · ·						
PROJECT NUMBER:	92	60610	<u>no</u>	PERS	PERSONNEL: DRD LTAP								
STATIC WATER LE	VEL (FT):	27.5		MEAS	MEASURING POINT DESCRIPTION: 40 THE MICHAEL								
WATER LEVEL MEAS	SUREMENT	METHOD: 🔀	olinst	PURG	E METHOD:	Dump							
TIME START PURG	E: <u>8</u> 5	) <sub>O</sub>		PURG	E DEPTH (FT)								
TIME END PURGE:	<u>855</u>												
TIME SAMPLED:	<u>855</u>	, )		<del></del>									
COMMENTS: UF	Aliba	arted	OH M	eter									
<u> </u>	DIC	duct	obser	red									
CAR	sed	DUUND	= //-	12 feet									
	1												
WELL VOLUME CALCULATION (FILL IN BE-	TOTAL D			WATER COLUMN (F	T) X CASI	ULTIPLIER FO NG DIAMETER / 2	(IN) 6 = C	CASING VOLUME (GAL)					
FORE PURGING)	74.	1 -	375	1 100 to			<u></u>	2.656					
TIME		830	827	\$34	842	348	850	855					
VOLUME PURGED (	GAL)	0	2	2.5	4.5	6	7	8					
PURGE RATE (GPM	)						<u> </u>						
TEMPERATURE (°C	)	11	11.8	11,4	11.8	11.8	12	12.2					
pH ,		6.64	6.63	6.58	6.51	6.5	6.49	6.48					
SPECIFIC CONDUCTIVITY ( <u>m</u> (uncorrected)	icromhos) cm	314	310	304	313	300	299	297					
DISSOLVED OXYGE	N (mg/L)	><	•	$\times$			$\times$	X					
eH(MV)Pt-AgC1 re	ef.	$\overline{}$	$\overline{}$	$\overline{}$	X	X	X	X					
TURBIDITY/COLOR	.>	cloudy	Greyay	Cloudy	chuly	Slightly cloudy	Very Siight	KY Slight					
ODOR	<b>!-</b>	None		none	none	J	none	hone					
DEPTH TO WATER ( PURGE (FT)	DURING							170.12					
NUMBER OF CASING VOLUMES REMOVED	3	0			1.75	2.5		3					
DEWATERED?		NO					-						

F-43.1 (4-88) ISGO. I

Grouna	water P	urge a	ına Sar	npie Fo	orm	Date:		E/_/_ Ken	nedy/Je	enks Consultants		
PROJECT I	NAME:/	17025	787)			WELL	NUMBER	R: NMW	-14			
PROJECT I	NUMBER: _	926	-061	1.00		PERSO	ONNEL:	DED IJ	77R			
SAMPLE DA	SAMPLE DATA: TIME SAMPLED:COMMENTS:											
DEPTH S	DEPTH SAMPLED (FT):											
SAMPLING EQUIPMENT: Pump												
SAMPLE NO.	NO. OF CONTAIN- ERS	F CON- N- TAINER PRESER- FILTRA- FILLED TURBIDITY COLOR TODY AT 4°C?  FILTRA- FILLED TURBIDITY COLOR TODY AT 4°C?  CMMEN  COMMEN										
İ	1	GI	N0	2	1-L	LOW	Yellou	i Yes	WTPH	-D		
	PURGE WATER DISPOSAL NOTES: TOTAL DISCHARGE (GAL): 85 COMMENTS:  DISPOSAL METHOD: ATLUM ODSINE											
DRUM DI	ESIGNATIO	N(S)/VO	LUME PER	(GAL):_		· · · · · · · · · · · · · · · · · · ·	· · ·					
WELL HEAT	D CONDITI	ONS CHE	CKLIST (	CIRCLE Y	ES OR NO -	IF NO, AD	COMM	ENTS):				
INSIDE O	F WELL HE	AD AND			STY LID, CA	,	AND LO	CK)?: (YES)	NO			
	ING OK?: (	YES	NO									
COMMENTS	:_40_		<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del> ·						
GENERAL: WEATHER	R CONDITIO	ONS :	Onrt	40	vercr	ist						
TEMPER!	ATURE (SPE	CIFY (E	OR (°F)	40								
PROBLEM	AS ENCOUN	TERED DU	JRING PUR	GING OR	SAMPLING?				<del></del>			
				-		···.						
cc: Proj Job Othe	File:	ger:	· · · · · · · · · · · · · · · · · · ·	<del></del>		<b>-</b>						